

### Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

Claim 1 (Currently Amended): A method of defining and at least partially correcting errors of an image reproduction system, said errors being deviations between an image of predetermined quality and its reproduction, such errors being caused by defects in the image reproduction system, the method comprising the steps of:

spatially coupling the pixel values of color channels by mono-layered neuronal networks via space-variant weights;

determining the parameters of a neuronal net by a learning process utilizing the image captured by an image recording device of a reproduced test image of predetermined quality as a learning pattern; feeding data representative of an image to be reproduced to the neuronal net as target data ~~for processing in accordance with the parameters;~~

operating an image ~~forming~~ device on the basis of the data processed by the neuronal net implemented by a computer or a specific circuit.

Claims 2-3: Canceled.

Claim 4 (Currently Amended): The method of claim 1, wherein the neuronal net is trained by data produced by an image recording device capturing derived from an uncorrected digitized reproduced test image provided by the image ~~forming~~ reproduction device and wherein the target data is derived from digitized data of the original image to be reproduced.

Claim 5 (Currently Amended): The method of claim 1, wherein the parameters of the neuronal net are values derived from an image ~~forming~~ reproduction system the quality of image formation of which corresponds to the image forming quality of the image ~~forming~~ reproduction system to be corrected if the errors to be corrected are larger than the ~~differences of the two image forming systems~~ device-by-device variances of the image defects to be corrected.

Claim 6 (Canceled).

Claim 7 (Original): The method of claim 1, wherein the errors relate to color channels and wherein the correction of N

color channels requires adding of the outputs of  $N^2$  neuronal nets.

Claim 8 (Currently Amended): An apparatus for ~~correcting~~  
modifying image forming data, comprising:

a neuronal net spatially coupling pixel values of different color channels of image data to be reproduced implemented on a predetermined circuit and comprising parameters established by a learning process on the basis of a test image of predetermined quality, the output neurons of the neuronal net being connected to the inputs of the picture elements of an image ~~forming~~ reproduction device;

a storage for image data to be reproduced and connected and feeding the pixel values of different color channels to the input neurons of the neuronal net; and

an image recording device for generating digital data of an uncorrected image of a test image provided by the image ~~forming~~ reproduction device and connected to the inputs of the neuronal net during the learning process for defining the parameters.

Claim 9: Canceled.

Claim 10 (Currently Amended): The apparatus of claim 8, wherein the image forming quality of the image recording device is superior to the image ~~reproducing~~ forming quality of the image ~~reproducing~~ reproduction device.

Claim 11 (New): The method of claim 1, wherein all error classes, both spatial and pixel-related, are corrected simultaneously.